ACM-3511

Megapixel IP IR D/N PoE Fixed Dome with Vari-focal Lens

Hardware User's Manual

(DC 12V / PoE)

Ver. 2012/3/12

ACTi
Connecting Vision

Table of Contents

0. Precautions

Read these instructions

You should read all the safety and operating instructions before using this product.

Heed all warnings

You must adhere to all the warnings on the product and in the instruction manual. Failure to follow the safety instruction given may directly endanger people, cause damage to the system or to other equipment.

Servicing

Do not attempt to service this video device yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Trademarks

All names used in this manual are probably registered trademarks of respective companies.

Liability

Every reasonable care has been taken during the writing of this manual. Please inform your local office if you find any inaccuracies or omissions. We cannot be held responsible for any typographical or technical errors and reserve the right to make changes to the product and manuals without prior notice.

FCC/CE Regulation

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the users will be required to correct the interference at their own expense.

1. Introduction

Package Contents

ACM-3511



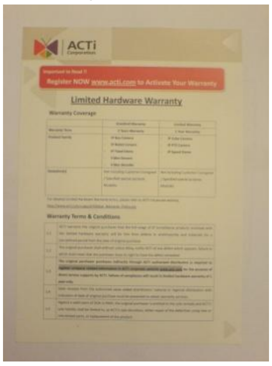
Product CD



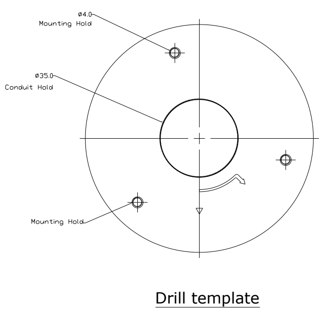
Accessories



Warranty Card



Drill Template



Features and Benefits

This is a cutting-edge digital video surveillance camera. It can compress and transmit real time images with outstanding image quality (8 FPS @ SXGA, 1280x1024) through a standard TCP/IP network. This camera is your best choice to build an intelligent IP surveillance system.

MPEG-4/MJPEG Dual Codec Compression

This device supports two compression formats, MPEG-4 and MJPEG. It brings superior image quality at 8 frames per second up to a resolution of SXGA (1280 x 1024) pixels, and offers up to 10 frames per second in HD720 (1280x720). In VGA (640 x 480) / QVGA / QQVGA the device reaches 30 frames per second.

Built-in Hardware Motion Detection

No more external motion sensors are required. You may assign up to 3 video motion detection areas. By tuning the object size and sensitivity, it will reliably detect objects passing though in view. Hardware motion detection also offers better sensitivity and faster response time than software motion detection.

Powerful Bundled Surveillance Software

To extend the capabilities of the IP Camera series, a powerful surveillance program is included in the package for free. Users can easily use an existing PC as a digital video recorder. Scheduled recording and manual recording keep every important video recorded in the local hard disk. Reliable and accurate motion detection with instant warning enables immediate response in every condition. Quick and simple search and playback function lets you easily find the images and video you want.

Software Development Kit Support

This IP Camera can be integrated or controlled by applications from third party software developers. Software developers can save considerable efforts by using our Streaming Library or ActiveX control. Please contact us for details on integration support.

Digital Time Code Embedded

The "Digital Time Code Embedded" function records video time in the video stream. Therefore, each image frame is marked with its original recording time. It is very useful when users want to find the video at an exact time or between a certain time intervals.

Safety Instructions

Don't use the power supply with other voltages

This device is likely to be damaged or damage other equipments / personnel, if you use a power supply with different voltage than the one included with this device. All warranty of this product will be voided in the situations above.

Cleaning

Disconnect this video product from the power supply before cleaning.

Attachments

Do not use attachments not recommended by the video product manufacturer as they may cause hazards.

Water and Moisture

Do not use this video product near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool and the like.

Don't use accessories not recommended by the manufacturer

Only install this device and the power supply in a dry place protected from weather

Servicing

Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Damage Requiring service

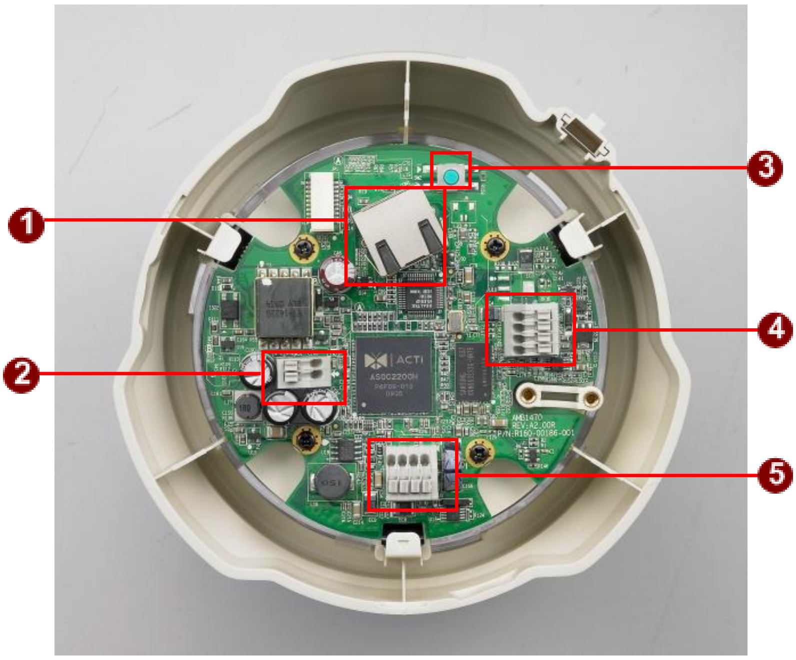
Disconnect this video product from the power supply immediately and refer servicing to qualified service personnel under the following conditions.

1) When the power-supply cord or plug is damaged
2) If liquid has been spilled, or objects have fallen into the video product.
3) If the video product has been directly exposed to rain or water.
4) If the video product does not operate normally by following the operating Instructions in this manual. Adjust only those controls that are covered by the instruction manual, as an improper adjustment of other controls may result in damage, and will often require extensive work by a qualified technician to restore the video product to its normal operation.

Safety Check

Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine if the video product is in proper operating condition.

Physical description



1) Ethernet Port

The IP device connects to the Ethernet via a standard RJ45 connector. Supporting NWAY, this IP device can auto detect the speed of local network segment (10Base-T/100Base-TX Ethernet).

2) Power Input

Connect the power adaptor here if your power input is DC12V.



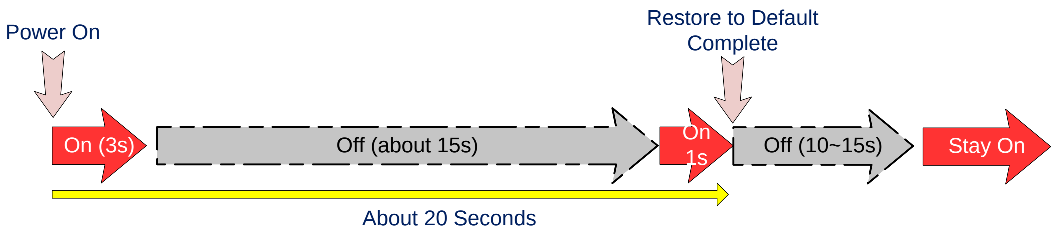
PIN	NAME	DESCRIPTION
1	12V	DC Power Input
2	GND	Ground Pin

3) Reset Button

Step 1: Switch off IP device by disconnecting the power cable

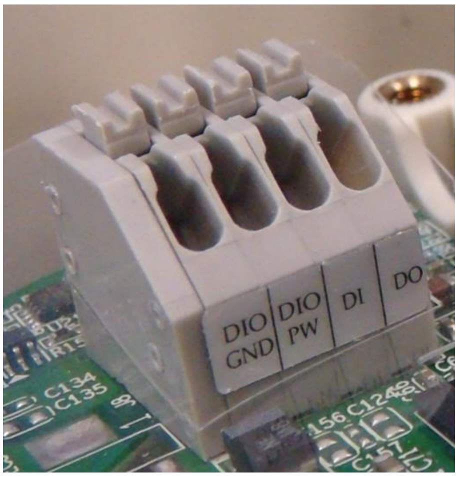
Step 2: Press and continue to hold the Reset Button (with a sharp tipped object, like a pen.)

Step 3: ***Reconnect the power cable while continuing to hold the reset button.*** The red Power LED light will flash on for 3 second first, turn off for about 15 seconds, flash on for another second and turn off again. By this time the reset to default operation is already completed. ***This will take around 20 seconds from power up.*** You may then release the reset button. This length of time fluctuates slightly with the environment. The Power LED light will come back on and stay on after a few more seconds. The unit will start up with factory default settings automatically.



4) Digital Input / Output *

The IP device supports Digital Input / Output with terminal block connections. Pushing down the tab above will reveal a small slot for you to insert the end of wire. Release the tab and the wire will be fastened by the internal spring. The connection pins are as shown in this image:



Digital Input / Output include the following:

•**1 transistor output** - For connecting external devices such as relays and LEDs. Connected devices can be activated by Output buttons on the Live View page or through video management software.

•**1 Digital Input** - An alarm input for connecting devices that can toggle between an open and closed circuit, for example: PIRs, door/window contacts, glass break detectors, etc. The device will detect the change in digital input and transmit the signal to video surveillance servers.

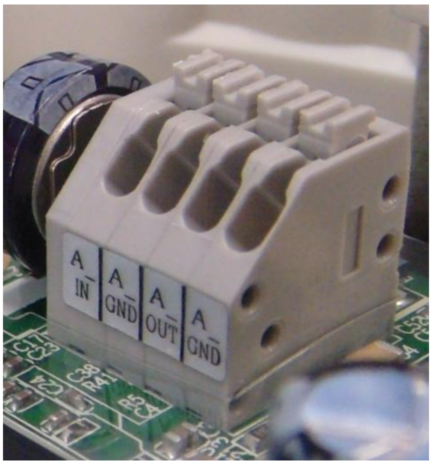
Terminal Pin Define is described as below:

Pin Name	Description	Spec
DIO PW	Electrically connected in parallel with the connector for the power supply, this pin provides an auxiliary connector for mains power to the unit. This pin can also be used to power auxiliary equipment, with a maximum current of 100mA.	Voltage: 12V DC, Max: 1.2W
DIO GND	Ground	Description
DO (Transistor Output)	Uses an open-collector NPN transistor with the emitter connected to the GND pin. If used with an external relay, a diode must be connected in parallel with the load, for protection against transient voltages.	Max load = <100mA Max voltage = 24V DC (to the transistor)
DI (Digital Input)	Connect to GND to activate, or leave floating (or unconnected) to deactivate.	Must not be exposed to voltages greater than 30V DC.

* Available only for device versions with enhancements

5) Audio Input / Output

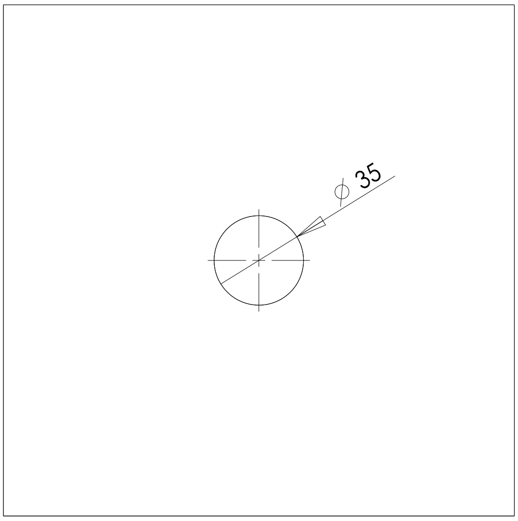
The IP device supports Audio input / output with terminal block connections. Pushing down the tab above will reveal a small slot for you to insert the end of wire. Release the tab and the wire will be fastened by the internal spring. The connection pins are as shown in this image:



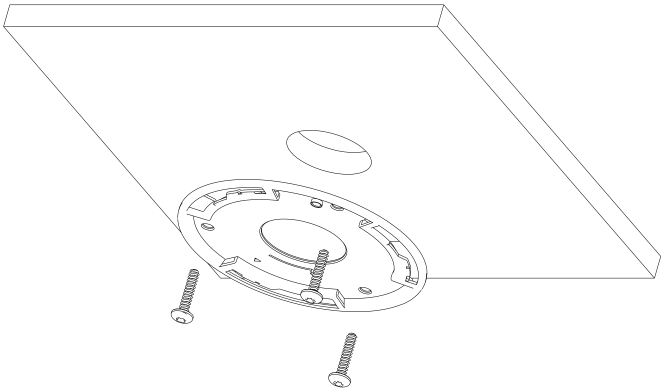
Installation Procedure

Ceiling Mount

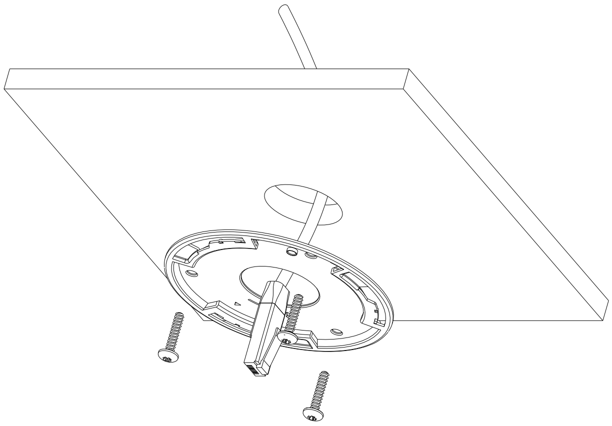
Use the drill template, and drill a hole with φ35 on the ceiling



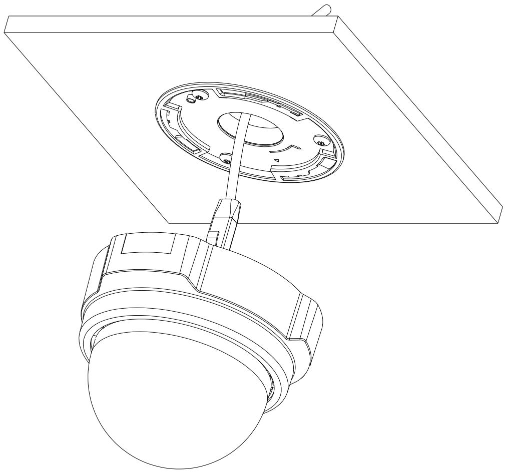
Tighten the plate to ceiling with M4*20 screws



Connect cables through the hole on the ceiling and plate, or on the side of casing



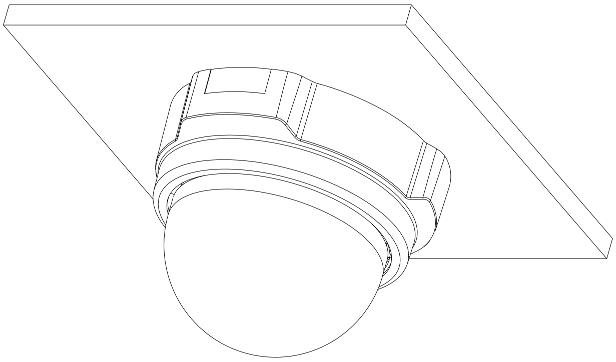
Fasten the camera to ceiling by turning clockwise direction



Insert the cables (Power/Network/DIO/Audio) through the mounting plate and connect to the camera. Then use the little strap in bundled accessory to fasten the network cable.

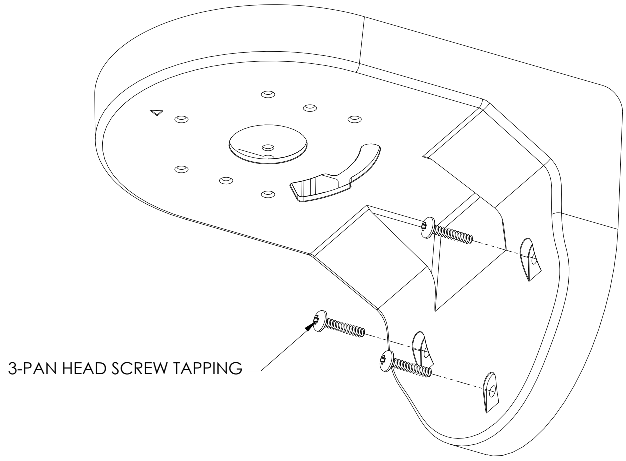


1.6.1.6 Done

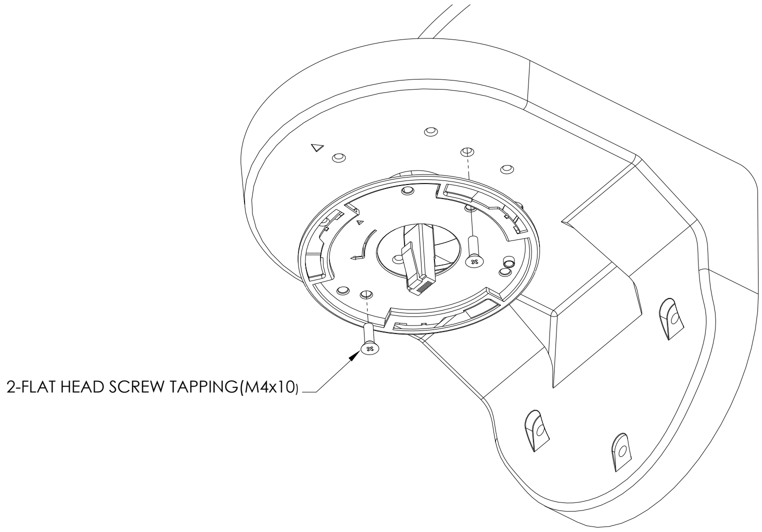


Wall Mount

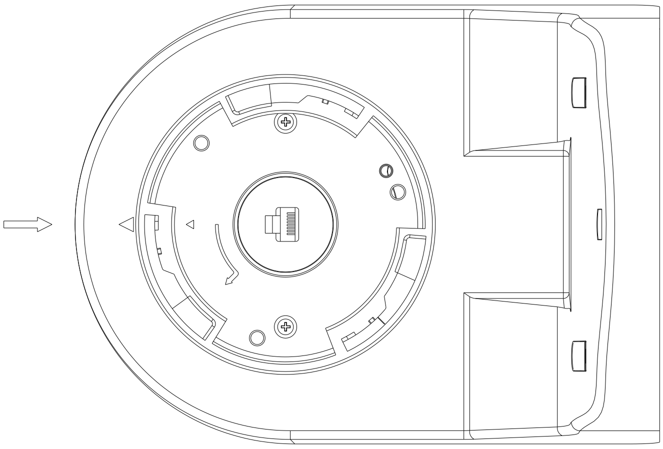
Tighten wall mount bracket to the wall by 3 PAN Head Tapping screws



Tighten the plate to wall mount bracket with M4*10 screws, and connect all necessary cables through the hole on the plate and wall mount kit



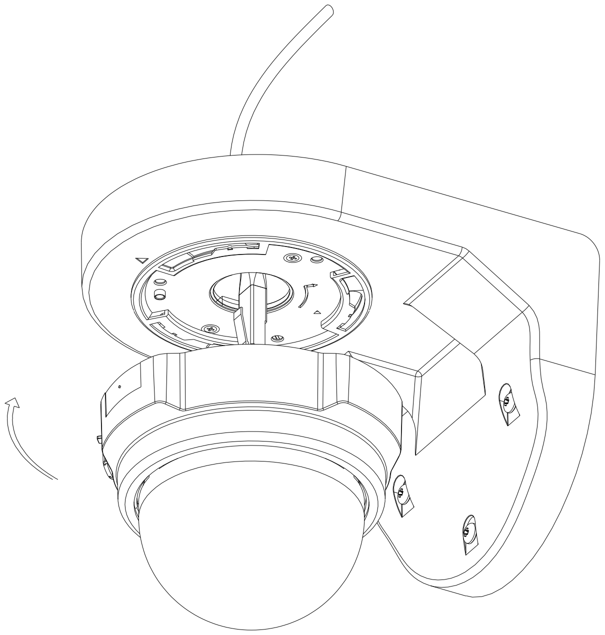
Note: that there's a triangle mark on both plate and wall mount kit. Those triangle marks need to be fixed to the same direction.



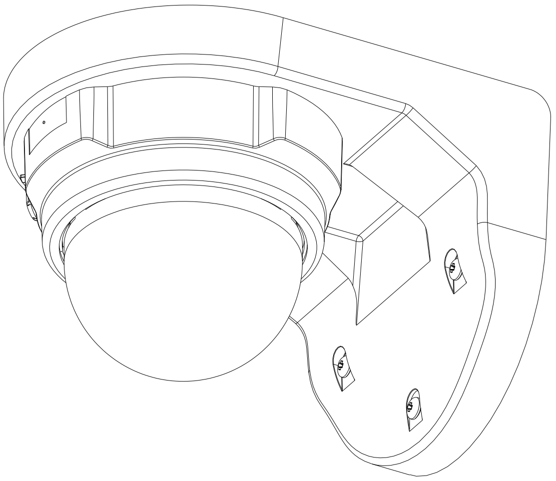
Insert the cables (power/Network/audio) through the mounting plate and connect to the camera. Then use the little strap in bundled accessory to fasten the network cable.



Fasten the camera to wall mount kit by turning clockwise direction

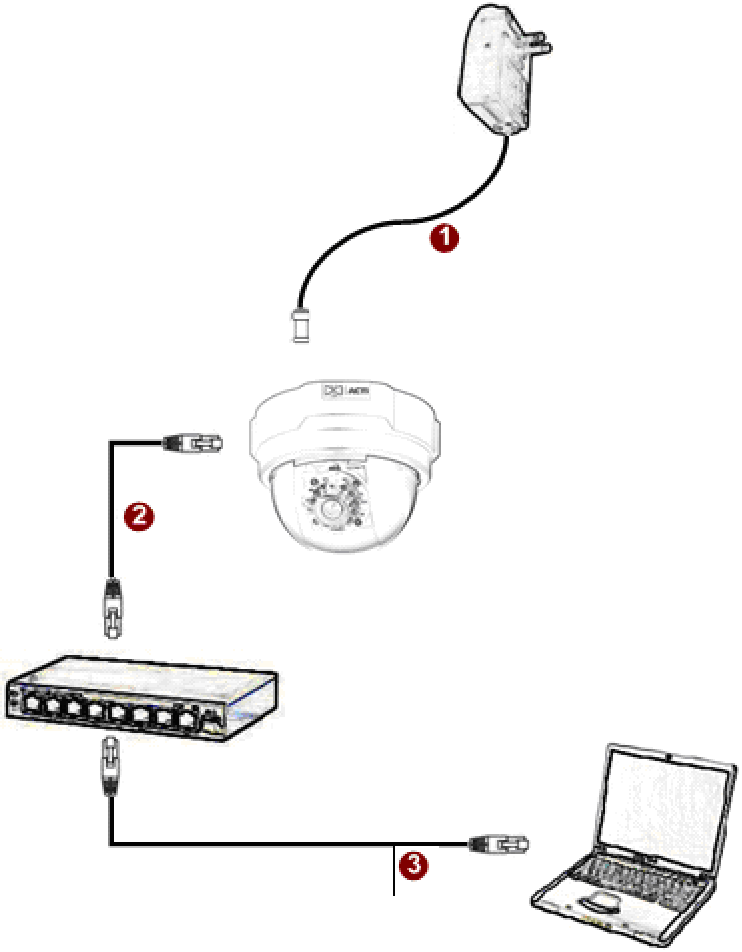


Done



Basic Connections

Follow the procedures below to connect the IP device to the respective apparatuses.



If you have a PoE(Power over Ethernet) supported switch or injector:

1) Connect your IP Camera to the Switch / Injector by CAT5 or CAT6 cables with RJ45 connector.
2) Connect your Switch / Injector to PC with another CAT5 / CAT6 network cable.

If your switch does not support PoE, and you are powering the camera with power adaptor:

1) Connect the power adaptor to IP Camera
2) Connect IP device's Ethernet port to Network switch (via RJ45 connectors).
3) Connect a PC to the Ethernet switch (via RJ45 connectors)

Please refer our PoE Guide for more details on Power over Ethernet related concepts.

Product Specification

		ACM-3511
Image	Device	Micron Progressive Scan CMOS
	Size	1/3 inch
	Effective Pixels	1280(H) x 1024(V)
Min. Scene Illumination	Color	Color mode automatically switched to B/W mode under 4 Lux
	B/W	0 Lux (IR LED ON)
	IR Sensitivity	from 700nm to 1100nm
	IR LED	IR LED x24 (850nm)
	CDS Sensor	Yes
	IR Working Distance	20 ~ 30 M (30 IRE)
Lens	Focal Length	f3.3 ~ 12mm / F1.6
	Viewing Angle	75.4º ~ 22.7º (Horizontal)
Camera Angle Adjustment	X (Panning)	0º ~330º
	Y (Tilting)	30º ~90º
Synchronization	Sync. System	Internal
Day/Night Functions	Mechanical IR Cut Filter	Yes
Functions	Motion Detection	Yes (3 Windows)
	Electronic Shutter	1/5 ~ 1/15,000 sec
	Fixed Shutter (Manual)	1/30 ~ 1/1,000 sec. (60Hz); 1/25 ~ 1/1,000 sec. (50Hz)
	Flickerless	1/120 sec. (60Hz); 1/100 sec. (50Hz)
	AGC	Automatic (User defined)
	White Balance	AUTO, INDOOR1, INDOOR2, OUTDOOR1, OUTDOOR2, HOLD CURRENT, MANUAL
S/N Ratio	S/N Ratio	Better than 44 dB
Video Compression	Compression	MPEG-4 SP, MJPEG selectable
	Picture Resolution	SXGA (1280x1024); HD 720 (1280x720); VGA (640x480); QVGA(320x240); QQVGA(160x112)
	Bit Rate	28K ~ 3M bps
	Image Frame Rate	SXGA at 8fps; HD 720 at 10fps; VGA at 30fps; QVGA at 30fps; QQVGA at 30fps
Audio Input	Compression	8kHz, Mono, PCM
	Audio Line Input	Unbalanced, 1.4Vp-p, 1Vrms, terminal block
Audio Output	Compression	8kHz, Mono, PCM
	Audio Line Output	Unbalanced, 1.4Vp-p, 1Vrms, terminal block
External I/O	Reset Button	Factory default
Alarm	Digital Input	1, TTL, terminal block *
	Digital Output	1, TTL, terminal block *
Casing	Mount Types	Surface / Pendant* / Wall* / Corner* / Pole* / Flush*
Network	Ethernet Port	Ethernet (10/100 Base-T), RJ-45 connector
	Protocol	TCP, UDP, HTTP, HTTPS, DHCP, PPPoE, RTP, RTSP, DNS, DDNS, NTP, ICMP, ARP, IGMP, SMTP, FTP, UPnP
Software	Web Browser	Microsoft Internet Explorer 6.0 or above
	SDK	ACTi SDK-10000
	Security	Password protection: configured by the administrator
Operating	Temperature	-10 ºC ~ 50 ºC (14 ºF ~ 112 ºF)
Power	Power Requirement	PoE (IEEE802.3af) with Class 3
	Power Consumption	5.0W (DC 12V); 6.8W (PoE)
Physical	Dimensions (ØxH)	130 mm x 99 mm (5.12" x 3.90")
	Weight	380 g (0.84 lb)
Approvals	Certificate	CE, FCC

* Available only for device versions with enhancements

2. Accessing Camera

If you have DHCP server / router in your network:

Many network server / routers are able to automatically provide IP addresses through DHCP. If you are using such a network, just plug in your computer and IP Camera into the network and your IP device will acquire network address by itself. Find and access the device with our IP Utility program. You may download it at:

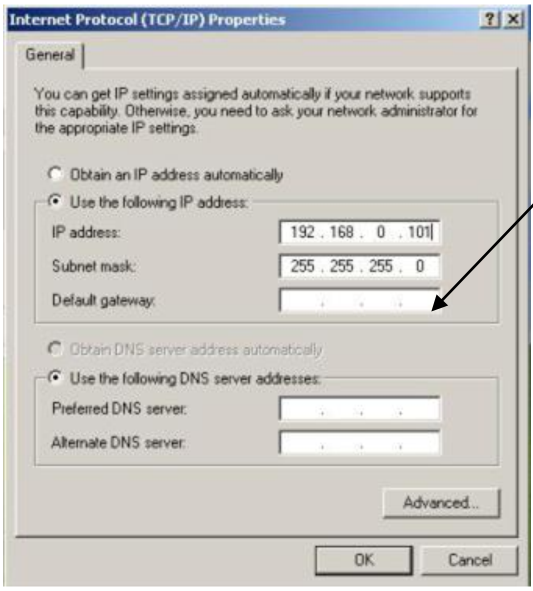
http://www.acti.com/product/detail/Software/ACTi_Utility_Suite

If you do *NOT* have DHCP server / router in your network:

1. Configure your PC to use the same subnet by changing your PC's IP address to the subnet with prefix 192.168.0.XXX. The last number should be anything from 1 to 254 except 100 and other occupied IP addresses. Subnet mask should be 255.555.255.0.

2. **The default IP used by this device is 192.168.0.100. Please make sure your PC is *NOT* using this address and that no two equipments use the same IP address in the network.**

3. Change your IP address by going to Control Panel ->Manage Network Connections -> Right click on the connection to change -> Option -> TCP/IP IPv4 Properties.



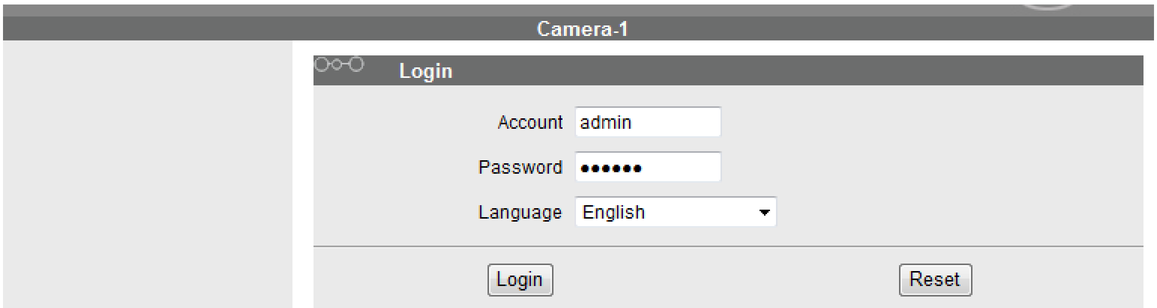
Please set the settings as below.

-
- IP address: 192.168. 0.xxx
- Subnet mask: 255.255.255.0

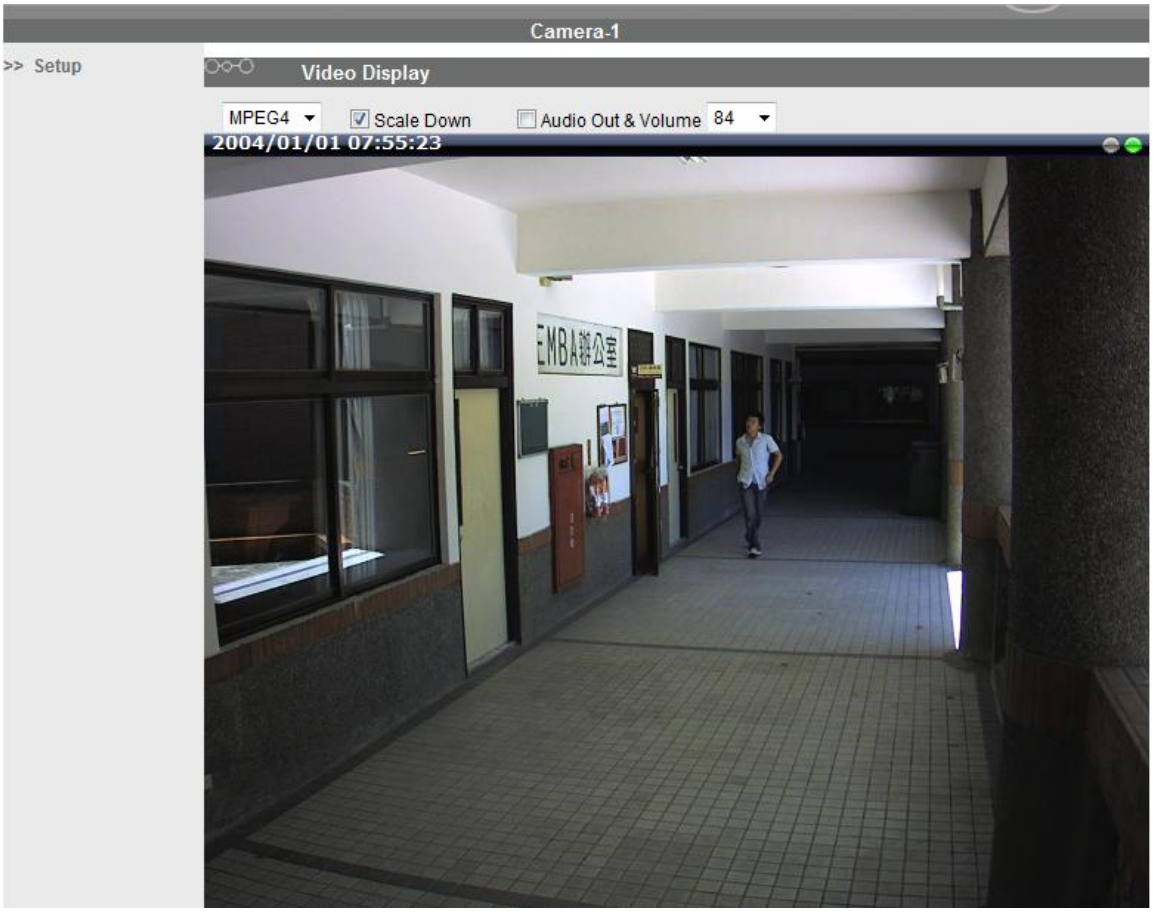
(**NOTE**: xxx should be a number from 1 to 254 except 100, which is used by the IP device. Please also make sure that no two equipments use the same IP address in the same network.)

4. Open Internet Explorer (Version 6.0 or above) , and type in the Default IP:
   192.168.0.100

5. When you see the login window, please input default user and password:
   Default User: Admin   Password: 123456



6. After logging in, you will see the video from camera. To go to the main menu, click the "Setup" button on the top left.



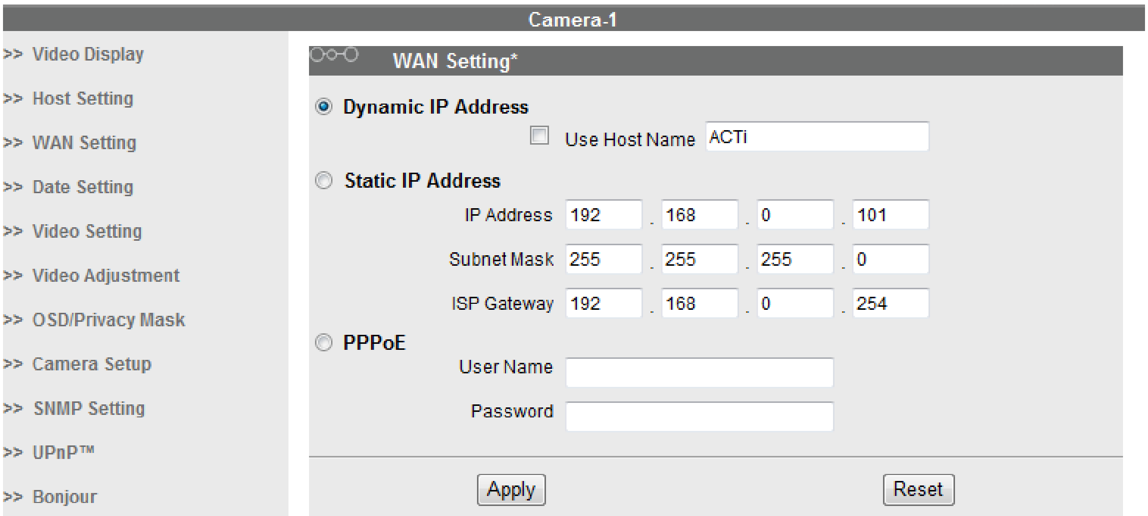
If you are using a single camera, this is enough to access the device.

If you are using multiple devices, you need to change the current device to another unused IP address, so that when the next device is connected to the network, no two devices use the same IP. Please perform the following steps.

7. Go to Setup -> WAN Setting

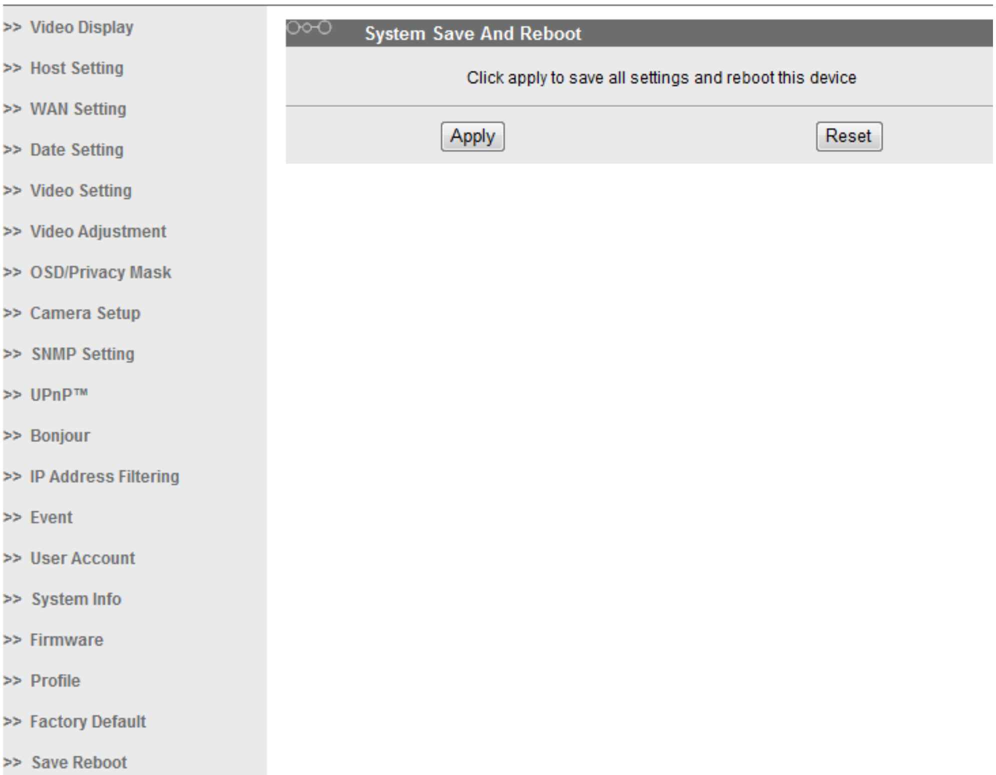
8. Choose Static IP Address.

9. Change the IP to 192.168.0.101 or any other unused IPs. Do NOT use the PC's IP address or 192.168.0.100.). If this is not the first device you add to the network, please also avoid other devices' IPs.



10. Click "Apply"

11. Please go to Save Reboot, and click "Apply". Internet Explorer will close after a few seconds. This is normal.



12. Wait for 30 seconds, and open IE again to connect to the **new IP**. (In this example, 192.168.0.101). For the second device or more you add into the network, please type the correct IP.

13. Adjust the video stream by going to Video Setting

